Simultaneous early carcinomas of the ampulla of Vater and the stomach

Report of a case involving chronic inactive hepatitis

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Summary

Early carcinoma occurred simultaneously in both the stomach and the ampulla of Vater of a 69-year-old Japanese woman. A tentative diagnosis of early carcinoma of the stomach and acute hepatitis was made and needle biopsy of the liver revealed chronic inactive hepatitis. A carcinoma in the ampulla of Vater was detected by duodenoscopy. Cholangiography did not reveal the biliary tract. Pancreatoduodenectomy was performed and histological study of the resected specimen showed an early carcinoma restricted to the mucosa and an early carcinoma of the ampulla of Vater invading the sphincter of Oddi. There was no apparent metastasis or invasion of surrounding tissues.

Carcinoma of the ampulla of Vater often manifests earlier than carcinoma of the pancreas and therefore the likelihood of a cure by resection is greater. Endoscopic retrograde cholangiopancreatography (ERCP) has contributed to detection of various lesions of the pancreas and biliary tract. A case of early carcinoma of the ampulla of Vater without jaundice has been reported and Schlippert et al. reported 7 cases in which 12.3% of carcinomas of the ampulla coincided with another neoplasm after the more commonly occurring tumours, e.g. prostatic carcinoma and leiomyoma of the uterus, had been excluded. In 3, the other tumour was detected simultaneously. An intensive search of the literature has revealed no report of early carcinoma of the ampulla of Vater occurring simultaneously with early carcinoma of the stomach in a patient with chronic inactive hepatitis. The relationship of these early carcinomas to chronic inactive hepatitis and immunological disorders is discussed.

Case report

A 69-year-old Japanese housewife was admitted to hospital in October 1982 complaining of general fatigue; she had undergone a cholecystectomy for cholelithiasis in 1980. A barium meal revealed early carcinoma of the stomach. Liver function tests revealed the following abnormalities: serum aspartate aminotransferase 434 U/l, serum alanine aminotransferase 456 U/l, alkaline phosphatase 22.5 U/l, total bilirubin 17.1 μmol/l, direct bilirubin 6.8 μmol/l. On 19 November 1982, she was transferred to the National Fukuoka Higashi Hospital for treatment of the liver and possible gastric surgery. On admission the patient's height was 152 cm, weight 68 kg, pulse rate 68/min and blood pressure 130/88 mmHg. The abdomen was soft with no sign of hepatosplenomegaly. Hepatic enzyme values were found to be raised.

Percutaneous needle biopsy of the liver showed chronic inactive hepatitis. Radiography revealed early carcinoma (type IIc) with shallow ulceration in the lower body of the lesser curvature of the stomach. As the biliary tract was not visible with drip infusion cholangiography, ERCP was carried out. This showed early carcinoma of the stomach and a tumour was exposed at the swollen ampulla of Vater. Biopsy of the swollen papilla suggested a well-differentiated adenocarcinoma.

On 24 December 1982, a pancreatoduodenectomy was performed as a curative operation and the postoperative course was uneventful. The patient left hospital 40 days after operation and was able to eat a normal diet and had gained weight. There was no evidence of diabetes mellitus or steatorrhoea. Liver function returned to fairly normal.

The resected specimen consisted of 15 cm of small intestine, the common bile duct and 4.0 cm of the head and part of the body of the pancreas. There was a shallow depression of the mucosa on the lesser curvature of the lower body of the stomach (Fig. 1). Histological examination revealed type IIc carcinoma of the

Fig. 1. Early type IIc carcinoma of the stomach (arrow).
Discussion

Carcinoma of the ampulla of Vater has often been described as carcinoma of the papilla of Vater,5,6 ampullary carcinoma,7 or peri-ampullary carcinoma.8 Carcinoma of the ampulla is rare, with an autopsy incidence of between 0,019% and 0,5%;9 it occurred in 12,7% of 3610 cases of pancreatic carcinoma.2 Because of its location with respect to the biliary system, carcinoma of the ampulla of Vater is considered to manifest earlier in its course of development than carcinoma of the pancreas. The most common physical finding is jaundice, which occurs in 93 - 100% of cases.5,6,10 Early carcinoma of the ampulla of Vater without jaundice is now more readily detectable by the routine use of gastroduodenoscopy with improvement in fibrescopes and the establishment of ERCP techniques. In this patient, jaundice was not present on admission or at the time of diagnosis of the ampullary carcinoma. One day before operation, the total bilirubin value had increased to 32,8 µmol/l.

Our patient had had a cholecystectomy 2 years before admission. Wise et al.12 discussed diseases associated with ampullary carcinoma, noting that of their 62 patients 70% had a concurrent biliary tract lithiasis and 18% a history of previous cholecystectomy. Warren and Gates13 reported multiple malignant tumours in 1,84% of 1 259 cancer cases on the basis of the world literature and that the frequency was 3,9% in their own series of 1 078 cancer autopsies. Schlipper et al.4 reported 7 cases of coincident cancers among 57 cases of carcinoma of the ampulla of Vater. There was no patient with gastric carcinoma.

Only 2 cases of the simultaneous occurrence of early carcinoma of the stomach and the ampulla of Vater have been reported, and this phenomenon appears to be unique in the medical literature. In the first recorded case14 of this simultaneous occurrence, there was a type IIA + IIC early carcinoma of the stomach and an early carcinoma of the ampulla. In our patient there was a type IIC early carcinoma of the stomach and an early carcinoma of the ampulla restricted to the papilla. Campbell and Wante15 suggested that there was an association in the frequent occurrence of multiple primary carcinomas. Although a carcinogenic diathesis for multiple tumours has been postulated,10 little is known of the related mechanisms. In our patient immunological investigation showed a high value for antinuclear antibody and serum complement, yet the other measurements were within normal limits. In patients with advanced gastric carcinoma, the lymphocyte responses to phytohaemagglutinin and pokeweed mitogen have been reported to be high.17

This report emphasizes that patients can present with multiple primary malignant tumours, although such cases are rare.

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Acute transmural myocardial infarction—coronary vasospasm, thrombosis or coronary embolus?

A case report

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Summary

A very fit 28-year-old Coloured athlete presented with an acute transmural anteroseptal and non-transmural anterolateral myocardial infarction (MI). He had no significant risk factors for coronary artery disease apart from moderate cigarette smoking. Cardiac catheterization 2 months later demonstrated a significant area of myocardial damage as well as a large mural thrombus, but the coronary arteries appeared normal apart from a large irregular filling defect in the proximal left anterior descending (LAD) branch, apparently due to a thrombus. Cardiac catheterization a further 4 months later documented no further filling defect in the LAD branch and the coronary arteries appeared free of disease. Ergometrine maleate provocation on this occasion failed to demonstrate any coronary vasospasm. Possible pathophysiological mechanisms for the unexpected MI are outlined.

Case report

The patient was a married 28-year-old Coloured man who smoked less than 10 cigarettes per day and had no family history of ischaemic heart disease. He classed himself as an athlete and claimed to have been exceptionally healthy until 28 December 1982 when he developed a severe crushing retrosternal pain while walking fairly briskly. This symptom lasted some 30 minutes and was associated with nausea and vomiting. He was taken to a district hospital where a resting ECG was interpreted as showing an "extensive anterior myocardial infarction" (MI). This diagnosis was apparently confirmed by serial serum enzyme estimations and he was treated with heparin and oral isosorbide dinitrate. He suffered no further angina until 9 days after admission when a repeat ECG demonstrated "complete right bundle-branch block" (RBBB). It was therefore decided to transfer him to our Intensive Coronary Care Unit on 7 January 1983. On admission the only abnormal finding was a loud fourth heart sound at the apex and a widely split second heart sound at the base. A resting 12-lead ECG (Fig. 1) showed sinus rhythm of 80/min, a P-R interval of 0.14 second and a mean QRS axis of -40°. There were also features of bifascicular heart block (left anterior hemiblock and complete RBBB) and of a recent transmural anteroseptal and non-transmural anterolateral MI. A chest radiograph was normal, as were results of laboratory studies.

At this stage it was decided against insertion of a temporary right ventricular cardiac pacemaker. ECG monitoring revealed no arrhythmias; daily resting ECG tracings continued to show